

8/4

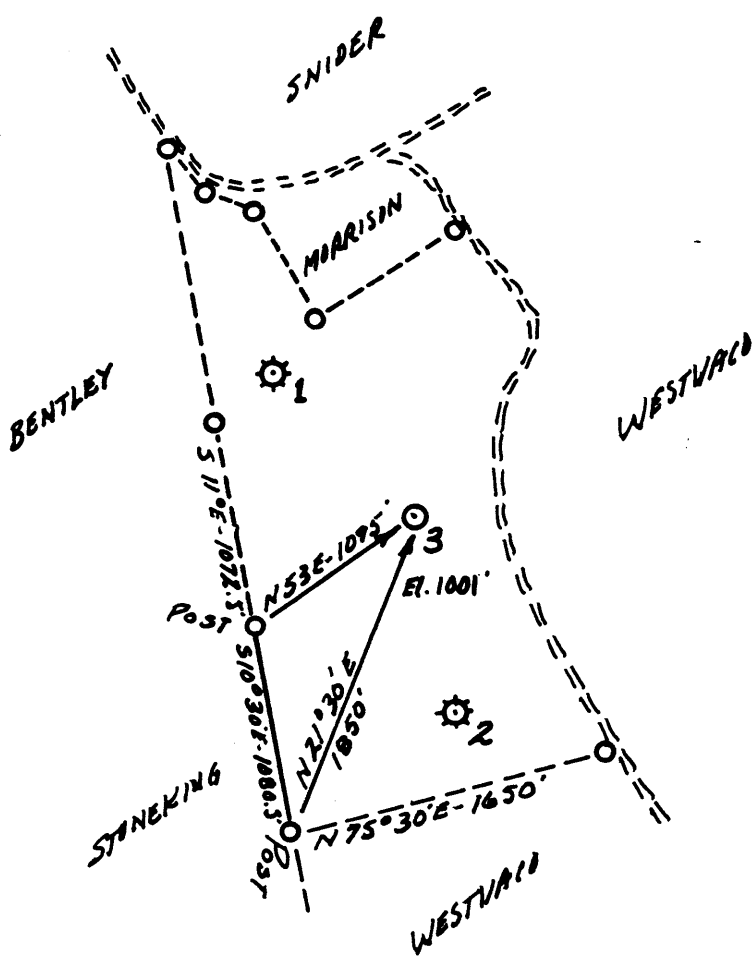
Plot Card CSD

← 3600' →

LATITUDE 39° 20' 00"

LONGITUDE 81° 20' 00"

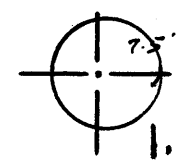
NORTH



1.98 S
0.68 W

~~2005~~
~~070W~~

39 18 15
81 20 45



1.98 S
0.68 W

FILE NO. 81-387
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1"/200'
PROVEN SOURCE OF ELEVATION KNOS (1006')

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
(SIGNED) Chet Waterman
R.P.E. 3788 L.L.S. _____

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
FORM IV-6 (8-78)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

DATE 7/23/ 19 81
OPERATOR'S WELL NO. 3
API WELL NO. _____
47 - 107 - 1169
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION 1001' WATER SHED BULL RUN
DISTRICT UNION COUNTY WOOD
QUADRANGLE WILLOW ISLAND 7.5' Marietta 15' SC
SURFACE OWNER O. JOHNSON ACREAGE 160
OIL & GAS ROYALTY OWNER O. JOHNSON LEASE ACREAGE 160
LEASE NO. _____
PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION GORDON ESTIMATED DEPTH 2800'
WELL OPERATOR ENERGY UNLIMITED INC. DESIGNATED AGENT DAVID CLOVIS
ADDRESS 427 - 2ND ST. ADDRESS PARKERSBURG, W.VA.
MARIETTA OHIO HENDARSHOT OGDIN

AUG 1 1981
AUG 1 1981

AUG 17 1981

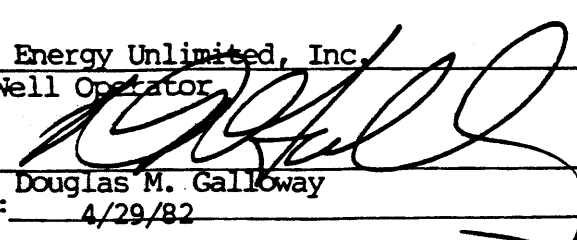
DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

FM 50#M sand in 900 bbl H2O thru 14 - .5 holes from 2344' to 2351'

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
soil		soft	0	15	
shale		soft	15	60	
sand		hard	60	75	
shale		soft	75	120	
sand		hard	120	146	freshwater
sandy-shale		shale	146	287	
sand		hard	287	335	
shale		soft	335	450	
sand		hard	450	492	
silty-shale		soft	492	515	
sand		hard	515	560	
shale		soft	560	743	
sand		hard	743	780	
shale		soft	780	967	
sand		hard	967	1002	
shale		soft	1002	1123	
sand		hard	1123	1138	
sandy-shale		soft	1138	1165	
sand		hard	1165	1184	
shale		soft	1184	1410	
Salt Sand		hard	1410	1500	salt water
shale		soft	1500	1688	
Maxton		hard	1688	1774	
shale		soft	1774	1780	
Keener		hard	1780	1804	salt water
shale		soft	1804	1809	
Big Injun		hard	1809	2028	salt water
silty shale		medium	2028	2302	
Wells Stray		medium	2302	2305	little gas
shale		soft	2305	2364	
Berea		hard	2364	2370	show of gas & oil
silty shale		medium	2370	2479	
Gantz		medium	2479	2484	little gas
silty shale		medium	2484	2607	
Thirty-Foot		medium	2607	2616	little gas
silty shale		medium	2616	2730	
Gordon		medium	2730	2764	show of gas & oil
silty shale		medium	2764	2893	T. D. 2893'

(Attach separate sheets as necessary)

Energy Unlimited, Inc.
Well Operator
By: 
Date: Douglas M. Galloway
4/29/82

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including..."



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

RECEIVED

OCT 13 1981

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

Rotary Oil _____
Cable _____ Gas _____
Recycling _____ Comb.
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Quadrangle Willow Island
Permit No. 47-107-1169

Company Energy Unlimited, Inc.
Address 427 Second St. Marietta, OH 45650
Farm Johnson Acres 160
Location (waters) Bull Run
Well No. #3 Elev. 1001'
District Union County Wood
The surface of tract is owned in fee by _____

Address _____
Mineral rights are owned by O. Johnson
Address Rt. #2 Waverly, WV 26184

Drilling Commenced 8/27/81
Drilling Completed 9/5/81
Initial open flow -0- cu. ft. -0- bbls.
Final production 15M cu. ft. per day 10 bbls.
Well open 24 hrs. before test 450 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size			
20-16			
Cond.			
13-10"			
9 5/8			
8 5/8		250	100 sx
7			
5 1/2			
4 1/2		2846.37	250 sx
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

FW 50M# sand in 900 bbl H2O
thru 14 - .5 holes from 2344' to 2351'

Coal was encountered at none Feet _____ Inches _____
Fresh water 120' Feet _____ Salt Water 1410' Feet _____
Producing Sand Berea Depth 2364' to 2370'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
shale	gray	soft	-----	1410'	---	top logged interval
sand	white	hard	1410'	1500'	salt water	1400'
shale	gray	soft	1500'	1688'	---	Salt Sand
sand	white	hard	1688'	1774'	---	---
shale	gray	soft	1774'	1780'	salt water	Maxton
sand	white	hard	1780'	1804'	---	---
shale	gray	soft	1804'	1809'	salt water	Keener
sand	white	hard	1809'	2028'	---	---
silty shale	gray	medium	2028'	2302'	salt water	Big Injun
shaly sand	gray	medium	2302'	2305'	---	---
shale	gr-black	soft	2305'	2364'	little gas	Wells Stray
sand	white	hard	2364'	2370'	---	---
					show of gas & oil	Berea
silty shale	gray	medium	2370'	2479'	---	---
shaly sand	gray	medium	2479'	2484'	---	---
silty shale	gray	medium	2484'	2607'	little gas	Gantz
siltstone	gray	medium	2607'	2616'	---	---
silty shale	gray	medium	2616'	2730'	little gas	Thirty-Foot
siltstone	gr-brown	medium	2730'	2764'	---	---
					show of gas & oil	Gordon
silty shale	gray	medium	2764'	2893'	---	T.D. 2893'

(over)

* Indicates Electric Log tops in the remarks section.

OCT 29 1981

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks

Date Oct. 8, 1901

APPROVED Ernest H. ... Owner

By [Signature]

(116)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

JUL 30 1981

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES
OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

Surface Owner Oris Johnson
Address Rt. #2 Waverly, WV 26184
Mineral Owner same
Address _____
Coal Owner same
Address _____
Coal Operator none
Address _____

DATE July 27, 1981
Company Energy Unlimited, Inc.
Address 427 Second St. Marietta, OH 45750
Farm Johnson Acres 93
Location (waters) Bull Run
Well No. #3 Elevation 1001'
District Union County Wood
Quadrangle Willow Island

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 4-4-82.

[Signature]
Deputy Director - Oil & Gas Division

INSPECTOR
TO BE NOTIFIED Paul Goodnight
ADDRESS Smithville, WV
PHONE 477-3660

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated March 9, 1968 by Oris and Bounita Johnson made to J. E. Olds and recorded on the 13th day of March 1968, in Wood County, Book 541 Page 419

XX NEW WELL _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE
_____ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Very truly yours,
(Sign Name) Douglas M. Galloway
Well Operator
427 Second St.
Street
Marietta
City or Town
Ohio
State

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

47-107-1169 PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12.4 and will carry out the specified requirements."

Signed by [Signature]

BLANKET BOND

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO XX DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME N/A _____ NAME David C. Clovis _____
 ADDRESS _____ ADDRESS Union Trust Bldg., P'Burg, WV _____
 TELEPHONE _____ TELEPHONE 485-4403 _____
 ESTIMATED DEPTH OF COMPLETED WELL: 2800' ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Gordon _____
 TYPE OF WELL: OIL X GAS X COMB. X STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8 X	250'	250'	to surface
7			
5 1/2			
4 1/2 X	TD	TD	280 sacks or as required
3			Perf. Top by rule 15.01
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 150 FEET 1500 SALT WATER _____ FEET
 APPROXIMATE COAL DEPTHS none
 IS COAL BEING MINED IN THE AREA? no BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

 For Coal Company

 Official Title